

CLAIM (S):

The embodiments of the invention for which an exclusive property or privilege is claimed, are defined as follows:

1. A permanent tank enables to eliminate air into the pipes of a geothermal system, prevent the damage into the pipes of the geothermal system, ensure a fluid without air and increase the efficiency of the geothermal pipe.
2. When the geothermal system according to the claim 1 is started, a pump in shutoff circuit enables the fluid having 75 % of water and 25 % of methanol to circulate between a geothermal thermopump and a geothermal sensor in the ground.
3. The fluid entrance according to the claim 1 is located in middle of the tank that is connected by a tee to a connecting pipe of each side and which is connected to a shutoff valve which is connected to a purging and filling valve which is connected to an adapter that is connected to the geothermal pipe.
4. Each purging and filling valve according to the claim 3 enables to eliminate air and do the filling in the geothermal system by means of an external pump that is connected to the geothermal system.
5. The fluid exit according to the claim 1 is located in bottom of the tank

that is connected to a elbow which is connected to an optional pump which is connected to a connecting piece that is connected to a shutoff valve and which is connected to an adapter that is connected to the geothermal pipe.

6. The diameter of the tank according to the claim **1** is taller than its entering, that allows to decrease the fluid speed and separate air from fluid in directing air towards the top of said tank and the fluid towards the bottom of said tank.

7. A pipe having an upper transparent portion is connected by a tee to each end of said tank for visualize in all time the state of the system, and the valves are connected to said pipe for adding fluid if necessary or eliminating air.

8. The tank according to the claim **1** may be installed to the geothermal system without use the optional pump enabling to do again circulate the fluid coming from the tank inside the pipes of the geothermal system.